



Illinois Department of Transportation

Memorandum

To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS
From: Dianna L. Taylor
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: October 7, 2015

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement October 8, 2015 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Thursday, October 22, 2015**. Applicants will not be accepted after that time and date.

NOTE: A copy of each applicant's ACTIVE Illinois Professional Engineer License MUST accompany application for this position.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Halie Zulauf or Denise Hamilton at 217/782-5594.

CE IV

Design Engineer
Bureau of Airport Engineering
Aeronautics
Springfield

Attachments
40484

Technical Applications (PM 1080) **must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) by **Thursday, October 22, 2015, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: A copy of each applicant's ACTIVE Illinois Professional Engineer License MUST accompany application for this position.



Illinois Department of Transportation

An Equal Opportunity Employer

Position Summary Sheet

Classification: Civil Engineer IV

Salary Range: \$5,800 - \$9,230

Position Title: Design Engineer

Union Position: ☒ Yes ☐ No

Position Number: PW114-23-60-201-00-01

IPR#: 40484

Office/Central Bureau/District/Work Address:

Division of Aeronautics / Bureau of Airport Engineering / 1 Langhorne Bond Drive, Springfield, IL

Description Of Duties:

This position is the primary point of contact for the coordination, review and development of construction plans and specifications for IDOT-letting of airport improvement projects covered under the federal airport improvement program (AIP) at roughly 25 Illinois airports.

This position works closely with airport Sponsors and Consultants and is responsible for the administration, coordination and review of designs for construction plan and specification development for approximately 25 projects annually utilizing state and federal grant funds. This position is responsible for project design conformity with state and federal guidance to ensure funding participation eligibility. This position safeguards that projects are developed efficiently and economically in accordance with the programmed scope and budget.

Special Qualifications:

The following criteria is required:

- A current Illinois Professional Engineer license
- Valid driver's license

The following criteria is desired:

- Working knowledge of the routine practices of civil engineering with minimum ten years' experience in airport engineering
- Private pilot certificate
- Familiarity with Federal Aviation Administration (FAA) airport design and construction advisory circulars
- Skill in the design and development of plans and specifications of airfield and landside facilities, including sitework, drainage, paving and electrical (lighting and signage) components
- Basic skill in the use of engineering field and office instruments, including Microsoft Office and Auto CADD
- Strong oral and/or written communication skills and ability to write technical reports
- Ability to maintain harmonious relationships with fellow employees, vendors, and contractors

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

ILLINOIS DEPARTMENT OF TRANSPORTATION POSITION DESCRIPTION

DATE:	August 6, 2015	POSITION:	Design Engineer
APPROVED BY:	<u>Steve Long</u>	OFFICE/DIVISION:	Division of Aeronautics/Bureau of Airport Engineering
CODE:	PW114-23-60-201-00-01	REPORTS TO:	Section Chief of Airport Design

Position Purpose

This position is the primary point of contact for the coordination, review and development of construction plans and specifications for IDOT-letting of airport improvement projects covered under the federal airport improvement program (AIP) at roughly 25 Illinois airports.

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Dimensions

Job Site Inspections:	30 – 40 Annually
Value of Projects Developed:	\$15 Million – \$25 Million
Number of Projects Developed:	20 – 30 Annually
Engineering Agreements Processed:	30 – 60 Annually

Nature and Scope

This position reports to the Section Chief of Design. No subordinates report to this position.

The Department of Transportation, Division of Aeronautics acts as Agent of the Airport Owner (Sponsor) for all matters involving the development of any public air navigation facility by virtue of the Illinois Aeronautics Act. The Illinois Aeronautics Act requires and directs the Division of Aeronautics to “regulate and supervise aeronautics within the state”, with “aeronautics” defined as “...the design, establishment, construction, extension, operation, improvement, repair or maintenance of airports...”. The Division of Aeronautics shall not expend any funds appropriated, or made available...for any work upon any such project that is not contracted for and constructed or developed under the supervision or direction of the Division of Aeronautics.

The Division of Aeronautics administers the federal Airport Improvement Program (AIP), in part, through a cooperative Memorandum of Agreement with the Federal Aviation Administration (FAA) known as the Block Grant Program Agreement. Approximately seventy-five (75) public-use airports throughout the state are eligible to receive federal, state and local program funds to plan, create, develop and improve airport facilities.

Typical problems encountered by the incumbent include: Designing site procedures for the proper execution of the construction activities (Construction Safety Phasing Plan) while maintaining a high degree of safety for the flying public; establishing requiring within the contract documents a minimum standard of performance for acceptable airport construction practices; investigating new state-of-the-art equipment and materials under the direction of the Section Chief of Design; directing the development of projects and performing the necessary coordination between all contractual parties with the required justifications and documentation; approval of engineering report, project plans and specifications; recommends to the Section Chief of Design approval of payments to engineering firms for the design phase of the project; assuring maximum federal participation by working closely with FAA representatives; scheduling all necessary meetings with appropriate parties such as pre-design conferences; assuring the accuracy of the development of plans; and certifying to the FAA that the plans and specifications meet the State of Illinois and federal criteria and standards.

The greatest challenge to the incumbent is to resolve the many complex design problems to the satisfaction of all contractual parties while remaining within budget. In doing so, the incumbent must strive to provide and maintain a cooperative working relationship with engineering consulting firms, airport sponsors, the FAA, and other state officials, both inside and outside the Department.

The objectives and responsibilities are accomplished through working directly with the consultants' engineers, the FAA representatives, and the Airport Owning Municipalities. The incumbent assures that the consultant engineering firms have properly designed the project plans and specifications in order to certify that the project can be constructed in accordance with state and federal criteria and standards. The incumbent's responsibilities are fulfilled by visiting airport sites and making inspections as required with the Project Engineer, FAA representative and an airport owner's representative. The incumbent initiates pre-design conferences between the consultant, the FAA, and the airport representative to discuss the overall project scope, contract requirements, unique problems anticipated and the general work sequence in order to assure that quality plans are developed. Pre-bid conferences are arranged by the incumbent with all appropriate parties invited to render any clarifications of the plans, specifications and special provisions prior to contractors submitting their bids.

The incumbent exercises independent judgment on decisions concerning complex engineering problems. The incumbent directs adaptation of new methods and procedures and represents the Division in all matters involving the design phase of airport projects. The incumbent has complete freedom on technical matters within established engineering codes, state and federal standards and the Design Section's policies. All matters dealing with the interpretation of policy, elements of precedence, regulatory changes and other areas of controversy are referred to the Section Chief of Design for final decision. The incumbent performs other duties within the broad departmental guidelines and regulations as directed by the Section Chief of Design.

The incumbent maintains frequent contact with other departments, other DOT offices/divisions/bureaus, the FAA, cities, counties, and airport municipalities, contractors, consultant engineers and others in performing these duties. Travel is required of this position.

The effectiveness of this position is measured by the incumbent's ability to provide safe, timely, well designed, cost effective airport construction projects designed to serve the public. Other indicators of effectiveness are the timeliness of resolving problems and the maintaining of a high level of cooperation with all contractual parties.

Principal Accountabilities

1. Reviews all Transportation Improvement Program (TIP) submittals for scope and cost estimates to assure their accuracy and adequacy for later project development.
2. Conducts pre-design and special coordination meetings.
3. Provides guidance to all consulting engineers during design of airport projects.
4. Reviews and approves the engineering report prior to allowing the consultant to start work on the final plans. Recommends appropriate solution methods for all complex designs.
5. Performs reviews of all plans and specifications, approves the same upon completion and certifies to the FAA that they conform to the required state and federal criteria and standards.
6. Reviews and recommends to the Section Chief of Design approval of engineering agreements for: airport design which may include preliminary and special services; construction engineering services; and payments of subsequent design invoices.
7. Recommends to the Section Chief of Design all projects ready for letting and prepares contract documents for same.

8. Performs bid reviews and analysis and makes recommendations to the Section Chief of Design on the contract award or bid rejection.
9. Prepares the post letting documents, which include the detailed project budget (APMS); the detailed pay item list, by FASC, for both the base bid and all alternates, if any, showing the low bidder's unit prices and extensions along with the total bid price; the bid tabulations; and all appropriate letters to the sponsor, consultants, bidders, and FAA providing detailed results of the letting.
10. Assists the Section Chief of Design in the developing, writing, updating, and when applicable, the publishing and republishing of all Section documents including: the "Illinois Standard Specifications for Construction of Airports", the Manual of Policies and Procedures – Design Section; the boiler plate Agreement for Engineering Services, and the Contract Document for both federal/state/local and state/local projects.
11. Assists the Section Chief of Design in pre-qualifying consulting engineering firms in the different categories of airport work.
12. Performs other duties as assigned to accomplish responsibilities.
13. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.